

To: Alice Rubin, RCO Grant Manager
From: Jeanette Smith, SRFB Technical Review Panel
Date: December 22, 2022

Follow-up on condition review for Project 20-1052 Tucannon PA 34.1-34.2

The Review Panel has cleared to project to proceed to preliminary design of the preferred alternative # 3

Columbia Conservation district carried out an initial geomorphic assessment of the bridge over the Tucannon, provided cost information for all three alternatives and corrected the cost of the setback levees in alternative 3. They also provided a matrix of benefits for the three alternatives, which shows a somewhat better understanding of the trade-offs between alternatives.

The summary of geomorphic and sediment transport observations by Anchor QEA for this reach was helpful in clarifying the effect that sediment and flow from the Pataha have on channel and sediment dynamics at the junction of the Pataha and the Tucannon. It also provided an initial assessment of the bridge capacity and how it limits channel capacity, creates a backwater effect, and limits access to greater portions of the floodplain; though it was determined the bridge was adequate for bankfull flows.

The cost difference between the three alternatives is relatively minor at this point. The cost of the setback levee is reasonable given the protection it would provide to the landowner if the road crossing/bridge can be modified and levees removed to allow the Tucannon greater access to the floodplain at average annual flows.

Given the relatively minor differences in cost between the alternatives, a more detailed cost-benefit analysis is probably not warranted at this time. However, as the project design progresses it will be important to keep this issue in mind if construction costs increase significantly over what is currently proposed. As discussed before, this reach is currently primarily a transition and potential rearing reach for steelhead and chinook rather than a primary spawning reach.

Clarifications for future design and budget iterations:

Clarification of some statements in the conceptual design report of October, 2022 would be helpful. Page 10 indicates that road crossing improvements will be considered in Alternative 1 as well as Alternative 3 and the figures in Appendix A show these actions in all alternatives. However, the alternatives matrix and budgets for Alternatives 1 & 2 do not appear to include these actions. Could this just be an editing oversight or do all 3 alternatives include the potential for modifying the road/access crossings on the Tucannon and Pataha? Although a

preferred alternative has been chosen, it is difficult to compare cost/benefit when the elements of the alternatives aren't clearly defined.

Also, levee removal costs appear in Alternative 2, but not in Alternative 3. If this is an oversight, the \$ 50,000 for levee removal needs to be added or clarified if it is embedded in another line item for Alternative 3.

Permit costs of only \$2300 could be underestimated.